

W5YI

America's Oldest Ham Radio Newsletter

REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable.

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Fred Maia, W5YI, Editor, P. O. Box 565101, Dallas TX 75356
Electronic mail: fmaia@prodigy.net Website: <http://www.w5yi.org>
Tel. 817-461-6443 FAX: 817-548-9594

In This Issue...

Australia, S. Africa Go 5 wpm Code
Communicator Class Petition Filed
Hyper-Light Speed Antenna Patented
FCC's Software-Defined Radio Inquiry
Online Grocery Shopping Expands
Hams Assist at Fort Worth Tornado
UNTAET - a new DXCC Country
More: UK's Ham-to-Internet Linking
Ham Astronaut Tells about Life on Mir
Amateur Radio Enforcement News
Ham Radio Call Signs and Statistics
Study: Web Users Across the Globe
Internet Sales Tax Panel Fails to Agree

Vol. 22, Issue #8

\$1.50

PUBLISHED TWICE A MONTH

April 15, 2000

Australia and South Africa Join 5 wpm Morse Code Nations!

The Australian Communications Authority (ACA) has agreed in principle to implement changes to Australia's Amateur licensing arrangements regarding the Morse Code requirement. At present, Australia has two telegraphy examination speeds, 5 words-per-minute for the Intermediate license and 10 wpm for the unrestricted (full privilege) license.

Wireless Institute of Australia President Peter Naish VK2BPN has received a reply from the ACA in response to WIA's letter requesting a change to the licensing conditions. The WIA is Australia's national Amateur Radio society. The ACA press release on the matter is posted to the VK4 website at <<http://www.wia.org.au/vk4>>.

The reply includes the following statement "Given the overseas trends in relation to this matter, the ACA agrees in principle to implement changes to Australia's Amateur licensing arrangements in relation to the requirements for Morse Code." The upcoming change is covered in this paragraph:

"It is proposed that the Radiocommunications License Conditions (Amateur License) Determination No. 1 of 1997 and other Amateur documentation will be amended prior to the Sydney Olympic Games (mid-July) to reflect the following

- (1) The Amateur Intermediate Station License will authorize operation to the same extent that currently authorized under the Amateur Unrestricted Station License."

The distinction between the Intermediate (5 wpm) and Unrestricted (or full privilege) license which requires 10 wpm code proficiency is in the frequency bands and transmitter power authorized.

Intermediate holders have access to the Australian Novice bands -- segments of the 80, 15 and 10 meter bands -- at a maximum power of 100 watts. The Unrestricted license conveys all band privileges at a maximum of 400 watts.

It now appears that Intermediate license holders are due to obtain full privileges -- an interesting way to reduce the Morse proficiency requirement to 5 wpm. The ACA in advising the WIA of its decision, said that the Unrestricted Licence would still be available to new applicants.

But the authorities and other amateurs will still be able to determine the holder's license grade because Australia is not changing the call sign blocks. Intermediate license holders have 3 letter suffixes starting with J or K. Instead of obtaining increased operating privileges, the incentive to upgrade now will be to have a preferential call sign with a higher power output.

The ACA added in their March 14th press release that "In recognition that it is likely that the international requirement for Morse code will be considered by the World Radio Conference in 2002/3, the proposed changes are minimal in scope."

W5YI REPORT

America's Oldest Ham Radio Newsletter

Page #2

April 15, 2000

The change is being implemented at the request of the Wireless Institute of Australia's WIA/ACA Liaison. The WIA is also being asked by the ACA to "...update the Amateur Regulation Examination papers that contain questions reflecting the current arrangements relating to Amateur Intermediate Stations."

The WIA had submitted that due to an expected increase in the number of visiting radio amateurs traveling to Australia for the 2000 Summer Olympics, that it would be ideal to have the changes in place by then.

SOUTH AFRICA ADOPTS NEW 5 WPM HF LICENSES

The future of amateur radio in South Africa has been given a boost by the announcement of two new licences - a full HF band access license, and a practical-based (which requires no written exam) student license, both which require a 5 wpm code test.

The South African Radio League (SARL) first sought reforms for the regulations governing the hobby in its country nearly two years ago. At that time it determined that their previous Novice license had not proven successful in recruiting newcomers to Amateur Radio. The SARL Council proposed to introduce a practical hands-on license based on a classroom style course.

On Oct. 3, 1998, the SARL Council agreed on a new initiative to make the HF bands more accessible to Amateurs by addressing the Morse Code issue. Chris Turner ZS6GM, then SARL President issued a policy statement stating: (QUOTE)

"It is the opinion of the SARL, that there exists no good argument in favor of retaining Morse Code as the only qualifier for Amateurs to have unrestricted access to the HF bands. ...If the Amateur Service is to remain relevant in the 21st Century, it needs to embrace and encourage te development and use of the newer technologies. Clinging to Morse Code as an entry requirement will impede rather than help this development."

"The Amateur Radio Service has an extremely important role to play in the education of engineers and technologists in the field of telecommunications. It is therefore vital that the Amateur Service attracts your people."

"To this end, the League after consultation with its members, the regulatory authorities and educationalists is in the process of developing a practical 'hands on' student amateur license, with a minimal 5 wpm Morse Code exam, which is aimed at schools and school-going young people."

"In order to encourage ongoing development, the League will request SATRA [the South African Telecommunications Regulatory Authority] to modify the regulations to permit student licensees full access to all HF bands but with limited power output." (END QUOTE)

Most of its goals have now been realized through the

just announced new regulations. SATRA has now accepted the SARL submission that full HF band access should only require a 5 words-per-minute code test, and that encouragement needs to be given to youth to take up the hobby.

Instead of just two license grades (A1 and A2), the new regulations which the SARL says will take about two months to implement will now include:

SOUTH AFRICA AMATEUR RADIO

Grade A1 (All mode, privilege license - 400W max. power):	ZS callsign. Must pass the Radio Amateur Exam (RAE) + 12 wpm code. exam
Grade A2: (Restricted to spectrum above 50 MHz.)	ZR callsign. No code. Must pass the RAE only.
New Grade A3: (All HF bands at max. 100W)	ZT callsign. Must pass the RAE plus 5 wpm Morse code exam.
New Grade B: (Student HF, 2m, 70cm license.)	ZU callsign. Must construct a 'modular' QRP Amateur Radio station plus 5 wpm Morse code.

Notes: The *Radio Amateur's Examination* (RAE) consists of 90 multiple-choice questions from a pool of 600; 30 on regulations and operating and 60 on technical aspects. It is administered by ham radio clubs in May and October.

The new Class A3 license follows the trend of nations around the world towards requiring only 5 wpm code proficiency for full HF band access.

The new learner's licence is to be directed at schools. It would require a 5 wpm Morse Code test and an oral examination administered by teachers on operating procedure and radio regulations. We have not seen the final rules, but the original proposal was to permit 80m, 40m, 20m CW and Phone operation and all mode access on 2m and 70cm Access with a maximum output power level of 20 Watts PEP in order to encourage homebrew or kit construction.

This license is now in the process of being implemented. The new Class "B" student license is aimed at youngsters at the 10-year old level. To qualify for the license, candidates must construct a series of simple modules that, when complete, make up a fully functioning low power transceiver.

Although the details of the construction projects are not yet finalized, they consist of building sections of an Amateur station from a kit of parts. The modules include such components as an antenna, transmitter,

W5YI REPORT

America's Oldest Ham Radio Newsletter

Page #3

April 15, 2000

receiver and power supply.

A student is graded by an instructor on each module constructed. Once a section is completed, the candidate can move to the next module. There is no time limit on completing the required modules which when lashed together form a fully functioning QRP station.

A student is issued a ZU callsign and can go on air using their homebrew station once all of the projects have been successfully completed and the student passes the 5wpm code test.

The Grade B Student License Program is a part of the ARISAS, an acronym for *Amateur Radio in South African Schools*. The objective of the campaign is to increase science knowledge among students.

SARL is now presenting free of charge workshops to South African science and other teachers on "How to take Amateur Radio into the Classroom." The half-day workshop includes the following topics:

- Why ARISAS - Amateur Radio in South African Schools?
- Amateur Radio Licensing in South Africa and the new learners license soon to be introduced the SATRA.
- A review of what Amateur Radio can offer in and out of the classroom
- How to get your school involved and a
- Hands-on demonstrations involving radio contacts and the use of SUNSAT, South Africa's first satellite.

COMMUNICATOR CLASS PETITION FILED WITH FCC

Stewart R. Teaze NØMHS of Murrieta, CA has filed a petition with the FCC to establish a new "Communicator" class license. In it he proposes that FCC's restructuring Report and Order "...be expanded to include an introductory-level Communicator license class, to further encourage more young individuals to enter the Amateur Radio Service."

He adds, "In the late 1980's and early 1990's when the current Amateur Radio Service Technician Class license was conceived and implemented, it was an appropriate introductory license. However, that was before technologies like the Family Radio Service, high-speed and cable modems, the explosion of the Internet, and inexpensive cellular telephones overshadowed the privileges of the Amateur Radio Service."

"The Technician Class license has now evolved into a stopping point for most modern day Amateurs, who are mostly interested in VHF/UHF communications, rather than HF communications. The Technician Class license no longer serves well as an introductory license, and is doing poorly in drawing new members into the Service, especially young members."

"Therefore, it is recommended that a new 'Communicator Class' license be added to the Amateur Radio Service to encourage individuals to enter the Amateur Radio Service, and provide and encourage communications and experimentation by families and youth groups, such as Boy/Girl Scouts, schools, youth radio clubs, etc."

"Communicator licensees would be restricted to voice and digital communications on 20 simplex-only 25 khz-spaced channels between 445.75Mhz-446.25 MHz, with the following restrictions:

- (6) Fixed control station antennas will be no more than 6.1 meters (20 feet) above the ground or above the building or tree on which it is mounted; and
- (7) Transmissions limited to 2.5 watts ERP, or less.

The new license class would have the following goals:

- 1) Encourage more young people to enter the Amateur Radio Service, by providing an entry-level ARS license class that includes privileges allowing reliable short-range communications, which would be desirable to groups, families, and young people.
- 2) Not significantly impact the growth of business communications systems.
- 3) Not significantly impact existing users of the affected Amateur Radio Service frequencies.
- 4) Increase the use of the Amateur Radio Service operating bands, many of which are highly underutilized.
- 5) Encourage basic knowledge of radio, electronics, operating principles and etiquette among a wider segment of the general population.
- 6) Take advantage of the advanced being made in UHF radio technology, spurred by the success of the Family Radio Service."

"The Communicator license exam would consist of 25 fairly simple questions. Emphasis would be on understanding the existing operational, safety, etiquette and emergency questions from the Technician question pool that relate specifically to their privileges."

"Communicator licensees would be required to have a general understanding of Ohm's law and Power relations, but not have to carry out any calculations."

"They should be required to have a general understanding of how antenna length relates to wavelength, but not to carry out any calculations. General knowledge of simple resistive circuits, and their power dissipation, would be required. Knowledge of capacitors and inductors would not be required."

The petition was filed on March 17, 2000.

W5YI REPORT

America's Oldest Ham Radio Newsletter

Page #4

April 15, 2000

CUTTING EDGE TECHNOLOGY

■ A patent has been issued for a device that transmits radio signals through a new mysterious dimension!

David L. Strom of Aurora, CO has received U.S. Patent No. 6025810 for his **Hyper-light-speed antenna**, a new type of transmitting and receiving antenna.

The device makes use of a new discovery, a new dimension capable of acting as a medium of RF signals. He believes this invention can transmit energy at a faster speed and over a greater distance than conventional antennas with the same power and his antenna can be used to replace conventional antennas.

The online abstract says it is "A method to transmit and receive electromagnetic waves which comprises generating opposing magnetic fields having a plane of maximum force running perpendicular to a longitudinal axis of the magnetic field; generating a heat source along an axis parallel to the longitudinal axis of the magnetic field; generating an accelerator parallel to and in close proximity to the heat source, thereby creating an input and output port; and generating a communications signal into the input and output port, thereby sending the signal at a speed faster than light."

[My first impression was that this must be an April Fool's Day joke. But the patent is indeed legitimate!]

The full text of the patent can be found on IBM's *Intellectual Property Network* (IPN) at: <<http://www.patents.ibm.com/>>. Once there, enter number: 6025810 into the search engine.

Strom says his invention "...takes a transmission of energy, and instead of sending it through normal time and space, it pokes a small hole into another dimension, thus, sending the energy through a place which allows transmission of energy to exceed the speed of light."

The invention makes use of a hot surface (more than 1000 degrees Fahrenheit) a strong magnetic field and an accelerator. The device is connected to a transmitter and receiver.

The main purpose of this device is to allow signals to travel great distances at many times the speed of light and to use considerably less power to travel the same distance, compared to transmitters not using this device.

EMERGING COMMUNICATIONS

■ **Goal of "Anytime, Anywhere" Communications Within Reach** - The Federal Communications Commission has released a Notice of Inquiry (NOI) seeking information on "Software Defined Radio" technology or SDR for short. The FCC believes that software defined radios could significantly affect a number of Commission functions, including spectrum allocation, spectrum assignment, and equipment approval. In particular, they want to know how SDR could help them make more efficient use of the crowded radio spectrum.

The FCC said in the NOI "Software defined radios could offer tremendous advantages to consumers over currently available wireless equipment. These benefits include lower cost, a greater variety of features, and the ability to adapt to multiple communication standards. They could also offer advantages to manufacturers, such as increased economies of scale in production, increased worldwide market opportunities, and a decrease in the number of devices that must be maintained in inventory. Software defined radios could expand access to broadband communications for all persons and increase competition among telecommunication service providers."

Today, the radio communications world is defined by hardware. Radio equipment is manufactured to receive and transmit certain types of radio waves on certain frequencies. The FCC licenses specific frequencies to specific users. If the spectrum is not being used by the licensee, it goes unused.

With software defined radio the FCC might be able to allow many different radio services to use the same spectrum. Frequency license holders might be able to lease out their unused capacity to others. The technology enables devices to seek out pockets of unused spectrum and to shift operation to those frequencies.

In SDR technology, a laptop computer is interfaced between the different systems. Each radio system becomes an address on the computer which can be linked together. SDR can be used to talk across different radio systems ...every radio becomes compatible with every other type. The commercial possibilities are endless since SDR could link any dissimilar radio wave based communications together.

In a software defined radio, functions

that were formerly carried out solely in hardware, such as the generation of the transmitted radio signal and the tuning and detection of the received radio signal, are performed by software residing in high-speed digital signal processors. The fact that these functions are carried out in software means that the radio can be programmed to transmit and receive over a wide range of frequencies and to emulate virtually any different desired transmission format.

By using a computer to define what your radio equipment does, it can be an AM radio one minute ...or an VHF/UHF FM or shortwave SSB radio the next. Changing from one mode to another is similar to loading a different application on your PC. SDR has the potential to completely revolutionize 2-way radio equipment and communication.

Wireless technology under development holds the promise of letting phones and radios of the future be updated as new cutting-edge services become available. The technology could reduce the need for consumers to get additional equipment or hardware to access advanced services as they evolve.

The U.S. military is already using the technology and has a multimillion dollar contract with Motorola to develop SDR. The system relies on the firm's *Wireless Information Transfer System* or WITS. Basically the system receives one mode, converts it to digital and ships it out to a universal device. Software-defined radio helps to make incompatible systems work with each other.

SDR has the potential to eliminate the need for different types of receiving and transmitting hardware and to change the way users can communicate across traditional services. As it is now, public safety personnel operating on different frequencies can not communicate with one another. With SDR, it is merely a matter of linking the two addresses.

It could be several years before consumers see software-defined radio devices in the marketplace. Comments close on June 14, 2000; reply comments July 14.

INTERNET NEWS

■ **Online grocery operations offer Web shopping combined with home delivery to busy consumers.** Even though online grocery sales totaled just

W5YI REPORT

America's Oldest Ham Radio Newsletter

Page #5

April 15, 2000

\$200 million in 1999, Forrester Research predicts that online grocery sales will total \$10.8 billion annually, or 2 percent of total grocery sales, by 2003.

Webvan.com delivers groceries within a 30-minute window you choose and there is no delivery charge on orders over \$50. (\$4.95 for orders under \$50.) Webvan is run by former Borders Books Chairman Louis Borders.

Calling itself the "milkman of the next millennium," **HomeGrocer.com** offers free delivery on \$75 within a 90 minute window. They just went "public" last month and are substantially owned by Amazon.com and former Netscape chief Jim Barksdale.

Dallas-based **GroceryWorks.com** sells groceries at prices comparable to regular supermarkets ...even accepts manufacturer's coupons. Deliveries are made in the morning or afternoon without delivery or membership fees.

Priceline.com's WebHouse Club lets shoppers bid on thousands of brand name grocery items, obtaining substantial discounts when they purchase them online through the WebHouse Club. Consumers then pick up the groceries at participating supermarkets.

Streamline.com has a different idea. They charge \$30 a month for its virtual butler services who will fetch groceries, dry cleaning, prints from the photo shop and as well as a host of other personal products.

But not all online grocer are on the right track. **Peapod's** stock has dropped to under \$3.00 (from a 52 week high of \$16.38), their CEO has left "for health reasons" and they have lost a planned \$120 million investment. And **NetGrocer**, which ships non-perishable goods via Federal Express scrapped plans for a public offering last fall and abruptly announced its president had left the company.

WASHINGTON WHISPERS

■ **Credit card information stolen from an Internet retail site.** MSNBC has reported that a computer hacker stole and then hid 485,000 credit card numbers - including expiration dates and cardholder names and addresses - on an unnamed U.S. agency's Web site in January 1999. The data file, which included Visa, MasterCard, American Express and Discover cards, was discovered in March 1999 on the government system when the Web administrator noticed excessive storage space

being used for no reason. There was no evidence that any of the cards were used to commit fraud and some of the accounts were not active. The thief has been traced to Eastern Europe. Secret Service officials testified about some details of the case before Congress early last year to demonstrate the peril that computer hackers pose to online commerce. The theft was revealed in a letter from Visa to the Navy Federal Credit Union, in Merrifield, VA., the world's largest credit union with 19 million members.

MSNBC offered the following tip: Use only a credit or charge card - never a bank debit card - for online purchases. Under the Fair Credit Billing Act, consumers are liable for a maximum of \$50 if a credit card is used fraudulently and have the right to dispute charges under certain circumstances and temporarily withhold payment while the creditor is investigating them. Debit cards don't offer such protection. Using one online puts your entire checking or savings account at risk.

AMATEUR RADIO

■ Devastating Tornado ravages Fort Worth, Texas and surrounding area -

Amateur Radio volunteers were pressed into duty on Tuesday, March 28th as a tornado touched down in the heart of Fort Worth's downtown business district. More than a thousand tornadoes touch down in the United States every year, but few hit densely populated areas. This was the exception.

Before it was all over, millions of dollars in damage was wreaked on downtown Fort Worth, shattering glass in high-rise buildings and leaving rubble everywhere. Radio Shack's headquarters sustained over \$2 million in glass damage alone. More than 70 buildings and 300 homes were destroyed or badly damaged by the tornado's nearly 200 miles per hour winds.

Tarrant County (Texas) RACES was put on standby three hours before the storms hit on Tuesday afternoon March 28, 2000. Their RACES operation has an amateur radio station set up at the National Weather Service. At their request, the RACES net was brought up 2 hours before the storm hit and spotters were deployed into the field. Ft. Worth RACES has a total of 412 trained members.

SKYWARN nets in Tarrant and Dallas counties were activated well in advance of the storm's arrival. Sirens were sounded as the storms approached. One of Fort

Worth's spotters reported a tornado on the ground at 4th and 6th streets in downtown Fort Worth at 6:18 p.m. Central Time and local television stations were able to broadcast the tornado's wrath live. Several large buildings were completely destroyed.

The Fort Worth RACES van had been moved to a fire station where headquarters was established. RACES members reported to this location for assignments. Ft. Worth RACES Officer Lamar Pounds KA5NGG sent members to various hospitals, radio stations, nursing homes, police, fire and sheriff dept. dispatch offices and so forth. Some went to the Red Cross and started to set up shelters for the citizens.

KA5NGG said "We had ample warning of the approaching storms and I believe this is why we only had four deaths. We train for years for this day and it paid off. I am very proud of our Radio Amateur Civil Emergency Service group. We are still doing damage assessment." Over 100 people were sent to area hospitals with injuries. A fifth victim later died after suffering a broken skull from softball-sized hail.

A week after the storm, a 20-block area in downtown Fort Worth was still sealed off so construction crews could finish cleaning up. Real estate brokers estimated that as much as 1.5 million square feet of office space was left uninhabitable. Some of the downtown buildings will have plywood on them for months. Insurance adjusters estimate damage to Tarrant County at more than \$450 million.

■ **What or where is "UNTAET?" It's actually the newest DXCC Country.** - East Timor, which lies in the Indian Ocean midway between Indonesia and Australia, was previously a Portuguese colony but Portugal withdrew when Civil War broke out. Indonesia then intervened militarily and annexed East Timor as its 27th province.

But the UN never recognized the consolidation and called for Indonesia's withdrawal. East Timor shares a common boundary with West Timor, which is part of Indonesia, the former Dutch East Indies

On August 30, 1999, the people of East Timor voted to begin a process leading towards independence. At a UN meeting a month later, Indonesia and Portugal agreed to the transfer of authority in East Timor to the United Nations.

On October 25th, the United Nations Security Council established the Australian-led United Nations Transitional Administration in East Timor (UNTAET) as a peace-keeping operation responsible for the administration of East Timor during its transi-

W5YI REPORT

America's Oldest Ham Radio Newsletter

Page #6
April 15, 2000

tion to independence. UNTAET consults and works in close cooperation with the East Timorese people.

The ITU has now assigned the prefix block 4WA-4WZ for use by all radio stations within the areas administered by UNTAET. The prefix assignment is valid for as long as there is a UNTAET and will be returned to the ITU when it ceases to exist. All other private and Amateur Radio stations in East Timor must use the prefix 4W6. Elections for the world's newest democracy are scheduled for next year.

For DXCC purposes, UN Temporary Administration of East Timor will be added to the DXCC List with the effective date of March 1, 2000. QSL cards for QSOs made after that date will be accepted on and after October 1, 2000.

■ **Radioamateur crowned Miss Topeka** - Heather Hollenbeck, KBØMDX has been crowned Miss Topeka 2000 and will compete in the Miss Kansas 2000 pageant this June. She comes from a ham radio family. Mother is Missy AAØOF, Dad, Fred is NØWSA, brother, Jacob, is KBØRMK. Her granddad, Gary Hoff-sommer, WØTI, introduced her to Amateur Radio. [Thanks ARRL Letter]

■ **UK moves ahead with Internet-to-ham radio linking** - On March 21st the Radio Society of Great Britain issued a news bulletin to its members stating that it has reached agreement with the Radiocommunications Agency over two changes to the arrangements for Amateur repeater authorization and use.

"Repeater coverage and licensing - The existing policy of no coverage overlap in considering applications for additional repeaters is to be relaxed somewhat, providing that sufficient frequencies can be found to avoid co-channel interference. The full implementation of the IARU Region 1 12.5 kHz channel spacing on the 2-meter band in June 2000 enables the introduction of additional repeaters.

On the 430 MHz band there may be some difficulties with available frequencies and the Radiocommunications Agency is prepared to consider applications for new additional dedicated Internet linked repeaters with wide frequency spacing, as has been allowed for in the existing bandplan. Frequency co-ordination will have to be carefully carried out....

Internet linking - The relaxation of linking the Internet to amateur radio was announced by the Radiocommunications Agency in their December 1999 Press Release. Arrangements have now been concluded for the issue of the necessary No-

tices of Variation, as described in that Press Release, for individuals who wish to operate an Internet gateway via their local repeater.

This policy revision will be incorporated in the new Guide to Repeater Licensing, due to be published later this year. In the meantime Amateurs who wish to move forward with proposals are invited to contact the RMC which will be willing to help processing any applications."

■ **Navy doctor and ham astronaut Jerry M. Linenger KC5HBR of Suttons Bay, MI has written a book entitled "Off the Planet Surviving Five Perilous Months Aboard the Space Station Mir,"** (released by McGraw-Hill in February.)

In it he talks about his 132-day 1997 experiences aboard Russian Mir spacecraft in which he nearly died battling a fire in space. Linenger also talks about electrical blackouts, insufferable heat, leaking anti-freeze fumes, rising carbon-dioxide levels and a close call when an out of control supply ship barely missed crashing into the station.

He also talks of his training at Star City, Russia "...relying on outdated diagrams of Mir, undergoing rigorous fitness tests while Russian cosmonauts sat in the sauna drinking vodka with colonels, and girding for emergency bailout with untested shark repellent."

"Equipment breakdowns reminded him of just how fragile and critically ill the space station was.... In retrospect, Linenger wishes he'd made more of a fuss - before, during and after his mission - in hopes of making life easier for the NASA astronauts currently training at Star City for the international space station." [Associated Press.]

■ **Israel lowers code speed** - The Israeli Ministry of Communications has introduced a new license class that gives all HF band access for those who pass a 6 wpm Morse code test - but it does not include HF phone privileges.

The new license is called the "D Plus." It is an enhancement option for holders of the existing "D code-free" license grade. These licensees on passing a 6 wpm test will now get full HF band privileges to operate CW, as well as their existing all mode privileges above 50 MHz.

The "A grade" license requires 16 wpm code proficiency, yields all bands and modes, with a maximum HF power limit of 1 kW. The "B grade" (General) license requires 12 wpm code proficiency, allows 250w all mode on HF, plus access to the VHF/UHF/Microwave bands. The HF

"Grade B" subbands have been eliminated

The "C grade" Novice licence requires 6 wpm code proficiency, has had the HF power limit raised to 100w ...up from 15w, gives CW privileges on some HF bands, digital on 28 MHz, plus 2m and 70cm privileges at 25w.

Ron Gang 4X1MK and others in Israel believe the changes do not go far enough in light of the decisions in Britain and the U.S. 4X1MK said "It now remains to be seen if these changes will do anything to change the downward trend in general interest in ham radio in this country. Since, at least at this time, one still needs 12 wpm of Morse proficiency to get on HF voice, these changes may be too little and too late." To stimulate the hobby further changes may be made at a later date.

■ **FCC's Donna Scott, Gettysburg Licensing Facility sent out an e-mail note to the VECs:** "We had a problem beginning early March with RO (Renew Only)/RM (Renew and Modify) applications. They would grant with the old issue/expiration dates on the new license. [The FCC's and other online databases, however, carried the correct license expiration dates.] We are reprinting these licenses and they should go out by tomorrow [March 29]. Sorry if you have been getting tons of inquiries on this - we have been getting lots, too."

■ **There has been a lot of discussion about whether the amateur community will be able to identify a Technician Class amateur who has passed a code examination.** There is concern that some Technician Class amateurs who have not passed 5 wpm will simply begin operating on 10m phone because no one will be able to tell if they are authorized to do so or not.

Effective April 15th, new Technicians who pass 5 words-per-minute code examination will not have their application filed as Tech Plus. They will be filed as "Technicians" ...but they will retain the code credit.

After a brief transition period to insure that all applications for examinations administered before April 15th have been filed, VECs will no longer be able to file new Novice, Tech Plus and Advanced Class applications.

Applications in the FCC database that currently reflect Tech Plus will continue to do so until they are renewed and converted to Technician. But even after a Tech Plus has been renewed as Technician, the FCC's ULS database amateur administration screen will continue to show if an Amateur

W5YI REPORT

America's Oldest Ham Radio Newsletter

Page #7

April 15, 2000

was previously a Tech Plus.

But Technicians who subsequently pass a 5 wpm test after April 15th will not show up in the database as having done so.

■ **Hundreds of Amateur Radio operators are expected to gather in Brandon, Florida at Midnight, April 15, 2000 to upgrade their FCC operator's license.** That is when new rules governing Amateur Radio will take effect.

A team of ARRL Volunteer Examiners, led by West Central Florida Section Manager, Dave Armbrust, AE4MR, will conduct the first license upgrade session in Florida under the new rules. The VE Session will begin at 12:00:01 a.m. at RT Systems, 137 Windhorst Lane, Brandon. RT Systems in a local Amateur Radio hardware retailer.

"We have seen an unprecedented number of Hams passing exams, particularly the Extra Written Test since the December 30th FCC announcement," said Armbrust. "We could easily have several hundred Hams turn out for this event. We are going to be very busy on April 15th as Florida Hams take advantage of the new rules." Hams earning upgrades will be able to use their new license privileges immediately.

To receive a license upgrade, the Ham must present a *Certificate of Successful Completion of Examination (CSCE)*, a completed FCC Form 605 application and a copy of their current license to the Volunteer Examiners for processing. [ARRL West Central FL Press Release]

■ **ENFORCEMENT ACTIONS:** Kean C. Aw KG6APA (Technician) of Santa Clara, CA has had his new license set aside because the FCC has information that he operated on the 147.24 repeater prior to being granted a license. He was asked to contact the FCC.

Juanita S. Roush KC8CQC of Wooster, OH has had her license downgraded to Technician. She had been required to retake the Extra Class license examination.

The VE team of Luis Hernandez Ramos, KE4ECH, Ismael C. Cintron, KP4JC and Angel Nieves N4RLX have been discredited by the W5YI-VEC and the examination results of Idaberto Rodriguez KF4GLD, Alberto M. Febles KC4TED, Andy Collado KG4GML and Hector Cruz, KT4XV have been invalidated. All reside in the Orlando, Florida area.

Joseph P. Sopata, KB9NSM (Technician) of Munster, IN has been warned

and asked to contact the FCC regarding evidence it has indicating he has "deliberately and maliciously" interfered with ongoing communications on the WA9ORC 146.76 MHz repeater over the last several months.

Dan R. Renfro WA4PXV (General Class) of Hickory, NC received a similar warning notice for interference to the 53.07 MHz (Mt. Airy), 145.23 MHz (Spencer Mountain), 224.68 MHz (Anderson Mountain), 444.95 MHz (Gastonia) and other repeater systems in North Carolina.

Dennis V. DeMagistris KA3WTZ (Advanced Class) of Chester, PA has been asked to respond to a complaint from the trustee of the W3PS repeater in Eagleville, PA alleging interference to the 147.315 repeater system.

Don R. Davis WB5IUZ (Advanced Class) of Albuquerque, NM has been asked by the FCC to provide information regarding the operation of his 146.800 MHz repeater system ...especially how the stations identifies its transmissions.

The FCC says that John M. Yount K4QIJ (Extra Class) has been identified by close-in and long range direction finding to be the apparent source of malicious interference and jamming on both the 20-meter and 75-meter Amateur bands. Yount has been asked to explain the transmissions which have been identified by various call signs and "handles."

Clyde F. Morrow, Sr., KE8DQ (Extra Class), OH and Paul D. Fowler N6AUQ (Advanced Class) ave been asked to respond to a complaint from John Eugene Moore N8YRF of Marysville, OH that they improperly activated a R.A.C.E.S. network "...primarily for the purposes of the Workman's Compensation Act should any claims be made."

The FCC said it has been made aware of an ongoing personal dispute between Steven A. Tunder N8WGM (Advanced Class) of Freeport, OH and Roger L. Wiseman KC8JBO (General Class) of Glendale, WV and allegations of interference or jamming on the 20 meter band. They have been asked to contact the FCC.

Torrey Pines Gliderport of La Jolla, CA has been notified that the FCC has information that several glider pilots are using Amateur Radio communications without a valid FCC license. The firm has been asked to notify their patrons that use of radio transmitting equipment without a license is a serious violation which could lead to fines ranging between \$7,500 and \$10,000.

A second warning has been issued to James R. Mason, K5DWO of Plano, TX for allegedly interfering with the W5MRC repeater located in McKinney, Texas. The interference includes obscenity, profanity and one-way broadcasting. Mason was previously warned in a letter dated Oct. 28, 1999. Further interference will result in a fine and seizure of his transmitting equipment.

Lonnie H. Allen of Crane, MO had his N0TBO (General Class) license canceled on Feb. 23, 2000 for failure to appear for re-examination. He was re-examined on March 4, 2000 and granted KC0HJP which was set aside on March 15. The FCC wants to know about complaints concerning his operation on the Southwest Missouri ARC repeater system. Information received will be used to determine what action the FCC will take.

The FCC said it had evidence that a Douglas Merrill Barnes of Brea, CA has been operating 2-meter transmitting equipment without a license and "...deliberately and maliciously interfering with Amateur repeater communications." He was warned that continued operation will subject him to a fine or imprisonment as well as to seizure of his transmitting equipment.

Gary David Gray, W6DOE (Extra Class) of Anaheim, CA has been asked to explain the 27 club call signs that he has accumulated since 1997. The FCC wants a list of the names, addresses and telephone numbers of each club's membership in addition to other organizational information. The FCC said it intends to cancel all of the call signs unless they receive a satisfactory response.

■ **The number of Technician Class radio amateurs continues to grow!** On the next page is a chart indicating the number of currently licensed ham operators ...sorted by license class and month over the past two years.

This census shows that since April 1998, the number of "No Code Technicians" has increased by 21,000 ...more than 10%. All other license classes - except the Extra Class which increased by 2,000 - show a decrease. There are nearly 11,000 less Novice operators than just two years ago.

Many amateurs are not renewing. There are 34,323 amateurs in the FCC's database whose license has expired within the past two years - about 5% of the total.

"Vanity" call signs continue popular! One amateur in 25 has one. In total, 28,098 have been issued since the program started in 1996.

W5YI REPORT

America's Oldest Ham Radio Newsletter

Page #8

April 15, 2000

AMATEUR RADIO STATION CALL SIGNS

...sequentially issued as of the first of April 2000:

Radio District	Group A Extra	Group B Advanced	Group C Tech/Gen.	Group D Novice
0 (*)	AB0JZ	KI0RR	(***)	KC0HOY
1 (*)	AA1UY	KE1LU	(***)	KB1EZJ
2 (*)	AB2GY	KG2RJ	(***)	KC2GDW
3 (*)	AA3TL	KF3DP	(***)	KB3EKS
4 (*)	AF4TL	KV4EU	(***)	KG4GYO
5 (*)	AC5TZ	KM5WZ	(***)	KD5JSG
6 (*)	AD6JZ	KR6EG	(***)	KG6AVL
7 (*)	AC7BZ	KK7WC	(***)	KD7IMD
8 (*)	AB8FF	KI8JT	(***)	KC8ODE
9 (*)	AA9XR	KG9QP	(***)	KB9WAO
N. Mariana	NH0P	AH0BB	KH0IN	WH0ABJ
Guam	(**)	AH2DN	KH2UV	WH2ANX
Hawaii	WH7V	AH6PZ	KH7ZG	WH6DGI
Am.Samoa	AH8R	AH8AI	KH8DO	WH8ABF
Alaska	AL0T	AL7RP	KL0WR	WL7CVD
Virgin Isl.	(**)	KP2CP	NP2KR	WP2AIN
Puerto Rico	WP3F	KP3BL	WP3GX	WP4NOT

* = All 1-by-2 & 2-by-1 call signs have been assigned.

** = All 2-by-1 call signs have been assigned.

*** = Group "C" (N-by-3) call signs have now run out in all districts. Group "D" calls now being assigned.

Note: New prefix numerals now being assigned in Puerto Rico (KP3/NP3/WP3), Hawaii (AH7/KH7/WH7) and Alaska (AL0/KL0)

[Source: FCC Amateur Service Database, Washington, DC]

NEW AND UPGRADING AMATEUR STATISTICS

For the Month of March 1998, 1999 & 2000

License Class	New Amateurs			Upgrading Amateurs		
	1998	1999	2000	1998	1999	2000
Novice	70	60	42	5	0	20
Technician	1958	1522	1553	4	8	22
Tech Plus	199	192	134	362	366	648
General	43	22	11	427	275	231
Advanced	2	3	2	305	279	250
Extra Class	2	2	5	232	161	259
Total:	2274	1801	1737	1335	1087	1430
Decrease:	(14.3%)	(20.8%)	(3.6%)	(8.1%)	(18.6%)	+31.6%

Amateur Radio Census by Month, Year and License Class

End of the month census not including Amateurs whose license has expired but are still in the two year grace period.

Month	Extra	Advanced	General	Tech+	Technician	Novice	ARS Total
March-00	76,527	103,709	110,314	134,068	205,438	50,707	680,863
March-99	74,855	103,636	111,162	134,598	194,223	56,245	674,719
February-00	75,609	103,215	110,047	133,220	203,492	51,263	676,846
February-99	74,689	103,532	111,176	134,348	192,958	56,700	673,403
January-00	75,428	103,360	110,201	133,153	202,814	51,762	676,718
January-99	74,622	103,436	111,259	134,421	192,087	57,008	672,833
December-99	75,402	103,476	110,393	133,366	202,422	52,375	677,434
December-98	74,669	103,592	111,513	134,857	191,575	57,617	673,823
November-99	75,293	103,455	110,406	133,378	201,415	52,819	676,766
November-98	74,496	103,526	111,498	134,719	190,510	58,034	672,783
October-99	75,271	103,476	110,521	133,468	200,554	53,207	676,497
October-98	74,509	103,723	111,851	134,882	189,674	58,423	673,062
September-99	75,207	103,512	110,518	133,480	199,714	53,510	675,941
September-98	74,366	103,775	111,989	135,003	188,840	58,705	672,678
August-99	75,186	103,608	110,651	133,719	199,032	53,825	676,021
August-98	74,318	103,943	112,255	135,149	188,233	59,021	672,919
July-99	75,166	103,723	110,780	133,979	198,467	54,203	676,318
July-98	74,315	104,219	112,623	135,371	187,426	59,448	673,402
June-99	75,113	103,705	110,838	134,161	197,681	54,502	676,000
June-98	74,274	104,509	112,977	135,737	186,458	60,125	674,080
May-99	75,004	103,645	110,914	134,222	196,598	54,993	675,376
May-98	74,210	104,604	113,061	135,989	185,471	60,638	673,973
April-99	74,981	103,714	111,100	134,587	195,451	55,696	675,529
April-98	74,192	104,927	113,603	136,460	184,328	61,594	675,104

W5YI REPORT

America's Oldest Ham Radio Newsletter

Page #9

April 15, 2000

STUDY SHOWS 300 MILLION WORLDWIDE WEB USERS

Wireless devices, not PC's, critical to next generation growth

A major global study by the Toronto-based Angus Reid Group pegs the number of Internet users at about 300 million worldwide. And as many as 150 million more people are planning to log on this year. Several industry analysts have predicted the Internet will reach 1 billion users by 2005. There was only an estimated 40 million Internet users worldwide in 1996.

Angus Reid, one of the 25 largest research companies in the world, conducts market research in 50 countries, 5 continents and 40 languages through its global network of research partners. The firm has 11 offices around the world and 300 full-time and 800 part-time staff.

Its new report entitled "*The Face of the Web*" is a study of current and future Internet users based on a telephone or face-to-face sampling of over 28,000 people conducted in November, December 1999 and January 2000. (7,000 were current Web users ...over 21,000 general consumers in 34 countries.) The study represents a total population of 900 million. Released March 22nd, the full report sells for up to \$50,000 per copy!

But the \$1 million study also shows that Internet usage remains highly concentrated in a few countries, shows signs of slowing in several others and that hundreds of millions of citizens have no immediate intention of going online. In fact, forty percent of survey respondents representing about 340 million people worldwide, or the equivalent of the population of the United States were aware of the Internet but had no intention of using it in the next 12 months, with the majority citing a lack of interest, knowledge and relevance to their lives. Angus Reid said they believe a crucial barrier for some might be the expense of a home computer, and point to smaller, cheaper wireless devices as the key to future Internet growth.

The report says that countries in Eastern and Southern Europe have the largest numbers of adults who claim to have no interest in going online, and they own fewer home computers. "If there's any kind of digital divide, it's more about creating universal access with cheaper and easier technologies than concerns about language and literacy."

A key reason cited for the popularity of wireless usage in Europe and Asia is the cost-per-minute of most landline connections. Wireless devices make connectivity much more affordable in many countries. Also, the Japanese have established a separate Internet Protocol data network for cell phones, making it easy to use a portable phone or pager for messaging and short information services.

The U.S. ranked first in most of the study's categories: greatest estimated home computer ownership (107 million), most total Internet users (108 million), highest Internet knowledge (60%) and highest Internet usage

(with 59% penetration). The U.S. represents about 39% of Internet usage worldwide. Equally impressive, the U.S. will generate the greatest number of future users with an estimated 33 million new users expected to log on this year.

Canada scored second for Internet usage at 56%, Internet knowledge (54 percent) and tied with Switzerland and Australia for the number of people who had used a PC (75 percent). Canadians also finished second to the U.S. in percentage of those who have tried the Internet at least once (64% and 69% respectively).

Northern European countries surpass their southern counterparts in terms of those using the Internet. Sweden ranks third behind Canada at 53%; Australia 48%, Switzerland 45%, Finland 44% and the Netherlands fields 40%. By contrast, Spain and Italy ranked 23rd and 24th on the list, at 18% and 16% respectively, the survey showed.

In terms of sheer numbers, Germany ranks third (with 18 million users) and the U.K. fourth (14 million), but the real story is the startling contrast between "leading edge" countries to the north (Finland, Sweden and the Netherlands), and their neighbors to the south and east. Results from both Eastern and Southern Europe show that PC penetration and Internet usage seems to have stalled; as well, these countries have the largest proportions of adults who claim to have no interest of going online.

Asia: Hong Kong (35%), Japan (33%) and Singapore (33%) made it into the Top Ten in terms of percent of the population using the Internet. And given Japan's edge in developing wireless access options and wireless broadband, the country is sure to add millions of new users to its already 32 million existing users, second only to the U.S. The bottom two countries? India and Russia at 5%.

Dr. Angus Reid, Chairman and CEO believes the Web has much more ground to make up before it can claim to be a truly worldwide medium on the scale of television. "Even in many developed countries, one-third of adults have not tried the Internet. There is substantial room for growth in every country we studied. The key to reaching mass appeal will be to move fence sitters ...people who know about the Internet but for some reason simply haven't logged on yet into true believers and users."

Many people can't afford the relatively high initial cost of owning a home computer which is how most people access the Net today. Home Internet access trails behind almost every other household consumer electronic device in terms of ownership and usage. While 97% of respondents have a TV, 48% have a cellular telephone, 42% have home computers, 30% have TV game consoles ...only 20% have home Internet access.

Angus Reid concludes that for some, making home access cheaper and easier through TV-top boxes and game consoles will be the answer. But the real promise of Internet growth lies with wireless Internet devices.

W5YI REPORT

America's Oldest Ham Radio Newsletter

Page #10

April 15, 2000

PANEL FAILS TO AGREE ON INTERNET SALES TAXES

Agreement remains elusive on the contentious issue of whether states' sales taxes should apply to e-commerce in cyberspace.

It doesn't look like we are going to see any taxes levied on purchases made over the Internet anytime soon. Negotiations between pro-tax and anti-tax supporters broke down at the final meeting of the *Advisory Commission on Electronic Commerce* held March 20 and 21 in Dallas. The commission, made up of local, state and federal government representatives and high-powered business leaders were appointed to advise Congress on Internet tax policy. Now Congress must decide what to do after the temporary moratorium on Net taxes expires in October 2001.

The 19-member advisory commission was created by Congress as part of the *1998 Internet Tax Freedom Act* to make a non-binding recommendation by April 20 on the contentious Internet sales tax issue. Sales over the Internet are currently treated like mail order sales. That is out-of-state retailers can't be forced to collect sales taxes if the company has no physical presence in a state. Local and state governments want Internet sales taxed and claim they'll lose billions in tax revenue they are not.

Leading the pro-tax "state and local caucus" camp is Utah Governor Michael Leavitt (R-Utah) who is also chairman of the National Governors Association. He is joined by Gov. Gary Locke (D-Wash.), and Dallas Mayor Ron Kirk. They have the support of the National Retail Federation and the National League of Cities.

These members fear increasing Internet commerce would jeopardize the roughly \$150 billion in annual sales tax collections nationwide, forcing states to raise other taxes or cut services. They also argue banning sales tax collections on Internet transactions is short-sighted and unfair to 'brick-and-mortar' merchants who must charge sale taxes on similar goods. That position is also backed by many big name retailers like Wal-Mart, Radio Shack, Home Depot and Sears. They want a simplified, universal sales tax on everything ...including Internet purchases.

Another Governor, James Gilmore III, of Virginia - the commission's chairman - leads five members of the anti-tax camp. They want to extend the federal ban on Internet sales taxes for another five years. They are joined by six corporate representatives - top executives from AT&T, MCI Worldcom, America Online, Time-Warner, Gateway and Charles Schwab who also favor extending the moratorium, banning taxes on Internet access and repeal of the 3% telephone excise tax. They also want Congress to put into law a 1993 Supreme Court ruling that a state can collect sales taxes from a remote seller only if the seller has a physical presence there.

When creating the commission, Congress required that 13 of the 19 members had to agree before any formal recommendations could be made -- a so-called "super-majority." Neither side has managed to get that two-thirds

vote. The anti-tax, pro-business camp has the most support, but still lacks two votes.

It appeared that the extending the Internet sales tax ban another five years had the support of a majority of the heading into its final meeting. A consensus also was close on recommending that Congress end the century-old 3 percent telephone excise tax and to permanently ban taxes on Internet access.

Three representatives from the Clinton administration are on the panel, the general counsel from the Office of the United States Trade Representative, the general counsel for the Commerce Department, and a deputy secretary from the Treasury Department. They repeatedly have abstained from voting, making it nearly impossible for any side to obtain 13 votes.

And election-year politics crept into the debate when several Republicans began referring to the idea of taxing online sales as 'another Gore tax.' Others blamed President Clinton for blocking any compromise by instructing the three federal commission members how to vote.

The Internet sales tax issue is certain to impact the race for the White House between Vice President Al Gore and Texas Gov. George W. Bush. They face a delicate balancing act between their state supporters, who worry about revenue losses, and the high-tech industry, with its anti-tax wishes and potentially huge campaign contributions. Both candidates have said they would wait for the Commission report before they commented further. It will be interesting to see what they say on the "No decision."

Since the two-thirds majority needed to send their recommendations to Congress could not be reached, a simple majority report - written by such business members as AT&T, American Online and Charles Schwab, Inc - will now be sent to Congress. Local and state officials adamantly oppose a simple 'majority report' when Congress imposed a two-thirds 'supermajority' vote.

The majority report will discuss several positions on tax policy, including a repeal of the 3 percent federal telecommunications excise tax, a permanent ban on Internet access taxes, an exemption from sales taxes for digital products and continuation of the moratorium on taxing remote purchases on Web sales into 2006. Both supporters and opponents of collecting Internet sales taxes do agree on one thing, however. The existing sales tax system is far too complex and needs simplification.

Observers predict Congress is unlikely to act on the issue during an election year and it doesn't appear likely that we'll see any Internet Taxes anytime soon. The Clinton administration said it was "disappointed" that the panel members couldn't arrive at a consensus. The Senate finance committee said will hold hearings on the commission's report after it is published on April 20th.

The *Advisory Commission on Electronic Commerce* website is located at: <<http://www.ecommercecommission.org>>.